UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,141	12/06/2000	Daniel W. Sexton	30-GF-1100	8687

7590 12/02/2003

John S. Beulick
Armstrong Teasdale LLP
Suite 2600
One Metropolitan Square
St. Louis, MO 63102

EXAMINER	
PHAM, THOMAS K	

ART UNIT	PAPER NUMBER
2121	12

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/731,141	SEXTON, DANIEL W.	
	Examiner	Art Unit	
	Thomas K Pham	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Notice to Applicant(s)

1. Claims 1-18 of U.S. Application 09/731,141 filed on 12/6/2000 are presented for examination.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1- 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papadopoulos et al. U.S. Patent No. 6,282,454 (hereinafter Papadopoulos) in view of Jokela "Wireless Internet access using anonymous access methods" November 1999 IEEE International Workshop and further in view of Eady et al. U.S. Patent No. 6,304,788 (hereinafter Eady).

Referring to claim 1

Papadopoulos teaches a method for controlling and monitoring an industrial controller using a portable wireless device, utilizing a system including a programmable logic controller (PLC), a local server, said method comprising the steps of: monitoring and controlling a system using a programmable logic controller (PLC) (col. 4 lines 36-46, "Associated with the PLC ... information of the PLC 32"); exchanging communications between the PLC and a local server (col. 4 lines 21-35, "The web server 30 ... through the web server 30") displaying information from the PLC (col. 8 lines 37-43, "The different request ... Ethernet statistics and others") but

does not teach a wireless Internet Service Provider (ISP); exchanging communications between the local server and a wireless Internet Service Provider (ISP) server utilizing the Internet; transmitting commands from a wireless user communication device to the PLC using the wireless ISP server. However, Jokela teaches a wireless Internet Service Provider (ISP) (page 194, Introduction 1st and 2nd paragraphs, "Internet access through current cellular ... packets are tunneled using GTP"); exchanging communications between the local server and a wireless Internet Service Provider (ISP) server utilizing the Internet (page 196, Demonstration 1st and 2nd paragraphs, "A user carrying a PDA ... packets to and from the MU"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the wireless communication device through wireless ISP of Jokela with the industrial controller of Papadopoulos because it would provide for controlling and monitoring the PLC with a wireless device via the internet provided using a wireless ISP instead of a using normal Point-to-Point protocol. Furthermore, Eady teaches transmitting commands from a wireless user communication device (col. 5 lines 21-34, "Medical-monitor server 308 ... the client understand"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the communication method of a wireless device of Eady with the wireless ISP of Jokela and the PLC of Papadopoulos because it would provide for communicating the PLC industrial controller with a wireless user communication device over the Internet using a wireless ISP server.

Regarding claim 2

Papadopoulos teaches a step of exchanging communications between the PLC server and the local server further comprises the step of sending PLC operational data from the PLC to the local server (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt").

Regarding claim 3

Papadopoulos teaches a step of exchanging communications between the local server and the ISP server further comprises the step of sending the PLC operational data from the local server to the ISP server (col. 9 lines 56-67, "A user at a remote ... previously shown in Table 1").

Regarding claim 4

Eady teaches the wireless user communication device includes a display for displaying information, said step of exchanging communications between the ISP server and the wireless user communication device further comprises the steps of: sending the monitoring device operational data from the ISP server to the wireless user communication device (col. 5 lines 21-34, "Medical-monitor server 308 ... the client understand"); and displaying the monitoring device operational data on the wireless user communication device display (col. 3 lines 32-46, "Coupled to the system ... Advanced Graphics Port").

Regarding claim 5

Eady teaches the wireless user communication device includes a user interface for inputting information to the wireless user communication device, said step of exchanging communications between the ISP server and the wireless user communications device further comprises the steps of: inputting at least one monitoring device command (col. 3 line 59 to col. 4 line 6, "The I/O devices ... comprises a ROM 292 and flash (or EEPROM) 294"); inputting monitoring device operational response data using the input device (col. 5 lines 60-67, "Communicate with ... their

own information)"); sending the at least one monitoring device command from the wireless user communication device to the ISP server (col. 6 lines 1-10, "Set of CGI scripts ... access via server 102"); and sending the monitoring device operation response data from the wireless user communication device to the ISP server (col. 5 lines 21-34, "Medical-monitor server 308 ... the client understand").

Regarding claim 6

Papadopoulos teaches a step of exchanging communications between the local server and the ISP server further comprises the steps of; sending the at least one PLC command from the ISP server to the local server using the Internet (col. 5 line 64 to col. 6 line 45); and sending the PLC operational response data from the ISP server to the local server using the Internet (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt")

Regarding claim 7

Papadopoulos teaches a step of exchanging communications between the PLC and the local server further comprises the steps of: sending the at least one PLC command from the local server to the PLC (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt"); and sending the PLC operational data from the local server to the PLC (col. 9 lines 17-29, "The operating system 44 ... processing the request").

Regarding claim 8

Papadopoulos teaches a step of monitoring and controlling further comprises the steps of: controlling the operation of the PLC using the at least one PLC command (col. 6 lines 35-45); and controlling the operation of the PLC using the PLC operational response data (col. 9 lines 17-29, "The operating system 44 ... processing the request").

Regarding claim 9

Papadopoulos teaches a system for controlling and monitoring an industrial controller comprising: a programmable logic controller (PLC) (col. 4 lines 36-46); a local server configured to exchange communication with said PLC (col. 4 lines 21-35) but does not teach a wireless Internet Service Provider (ISP) server configured to exchange communication with said local server using the Internet; a wireless user communication device configured to exchange communication with said wireless ISP server. However, Jokela teaches a wireless Internet Service Provider (ISP) server configured to exchange communication with said the local server using the Internet (page 196, Demonstration 1st and 2nd paragraphs, "A user carrying a PDA ... packets to and from the MU"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the wireless communication device through wireless ISP of Jokela with the industrial controller of Papadopoulos because it would provide for controlling and monitoring the PLC with a wireless device via the internet provided using a wireless ISP instead of a using normal Point-to-Point protocol. Furthermore, Eady teaches a wireless user communication device configured to exchange communication with ISP server (col. 5 lines 21-34, "Medical-monitor server 308 ... the client understand"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the communication method of Eady with the wireless ISP of Jokela and the PLC of Papadopoulos because it would provide for communicating the PLC industrial controller with a wireless user communication device over the Internet using a wireless ISP server.

Regarding claim 10

Papadopoulos teaches a system in accordance with claim 9, wherein said local server further configured to access PLC operation data from said PLC (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt").

Regarding claim 11

Papadopoulos teaches a system in accordance with claim 10, wherein said local server further configured to communicate the PLC operation data to said ISP server (col. 4 lines 21-35, "The web server 30 ... through the web server 30").

Regarding claim 12

Eady teaches a system in accordance with claim 11, wherein said local server further configured to communicate the monitoring device to said wireless user communication device (col. 2 line 46-57, "Set of medical ... may be readily used").

Regarding claim 13

Eady teaches a system in accordance with claim 12, wherein said wireless user communication device further configured to display the monitoring device operational data (col. 3 lines 32-46, "Coupled to the system ... Advanced Graphics Port").

Regarding claim 14

Papadopoulos teaches a system in accordance with Claim 9 wherein said wireless user communication device further configured to initiate at least one PLC command and communicate the PLC command to said ISP server (col. 4 lines 30-46, "The client interface ... information of the PLC 32").

Regarding claim 15

Papadopoulos teaches a system in accordance with Claim 14 wherein said wireless user communication device further configured to initiate PLC operational response data and communicate the PLC operational response data to said ISP server (col. 9 lines 56-67, "A user at a remote ... previously shown in Table 1").

Regarding claim 16

Papadopoulos teaches a system in accordance with Claim 15 wherein said ISP server further configured to communicate the at least one PLC command and the PLC operational response data to said local server (col. 4 lines 30-46, "The client interface ... information of the PLC 32").

Regarding claim 17

Papadopoulos teaches a system in accordance with Claim 16 wherein said local server further configured to communicate the at least one PLC command and the PLC operational response data to said PLC (col. 6 lines 35-45, "The request for accessing ... the end of a scan interrupt").

Regarding claim 18

Eady teaches a system in accordance with Claim 9 wherein said wireless user communication device comprises: a user interface configured for the input of information to said wireless communication device (col. 3 line 59 to col. 4 line 6, "The I/O devices ... comprises a ROM 292 and flash (or EEPROM) 294"); and a display configured to display the user input information and information received by said wireless communication device from said ISP server (col. 3 lines 32-46, "Coupled to the system ... Advanced Graphics Port").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874, Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor *Mr. Anil Khatri* at *(703) 305-0282.*

Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the 4th floor),** or fax to the **official fax number (703) 872- 9306.**

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thomas Pham
Patent Examiner

TP

November 26, 2003

RAMESH PATEL
PRIMARY EXAMINER 11/26/03
For Anil Khatri